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## PINUS TORREYANA IN CULTIVATION

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Throughout the garden districts of San Francisco peninsula are grown plants of unusual quality, many of which are exotics introduced into California from various countries of the world. However, among our native plants there are a few which, because of their limited natural distribution, have been claimed as garden subjects. Among the latter is *Pinus Torreyana*, the Torrey pine.

*Pinus Torreyana* is native only on Santa Rosa Island and on the southern California coast twenty-two miles north of San Diego. In these two areas the trees are small with widely spreading branches forming symmetrical crowns, but under cultivation they adopt a habit distinctly foreign to that of their native state. One of the finest cultivated specimens in the state of California is a tree fifty years old. It is growing in excellent garden soil in an open area favored by sun all day and is situated about one hundred feet from a characteristic Californian creek, namely one which has running water but a few months of the year. The tree is seventy-five feet tall and the total spread of the branch system is about one hundred five feet. The main branches are displayed in a tier-like arrangement with the lowest tier composed of four major branches. The largest of these is thirty-three inches in

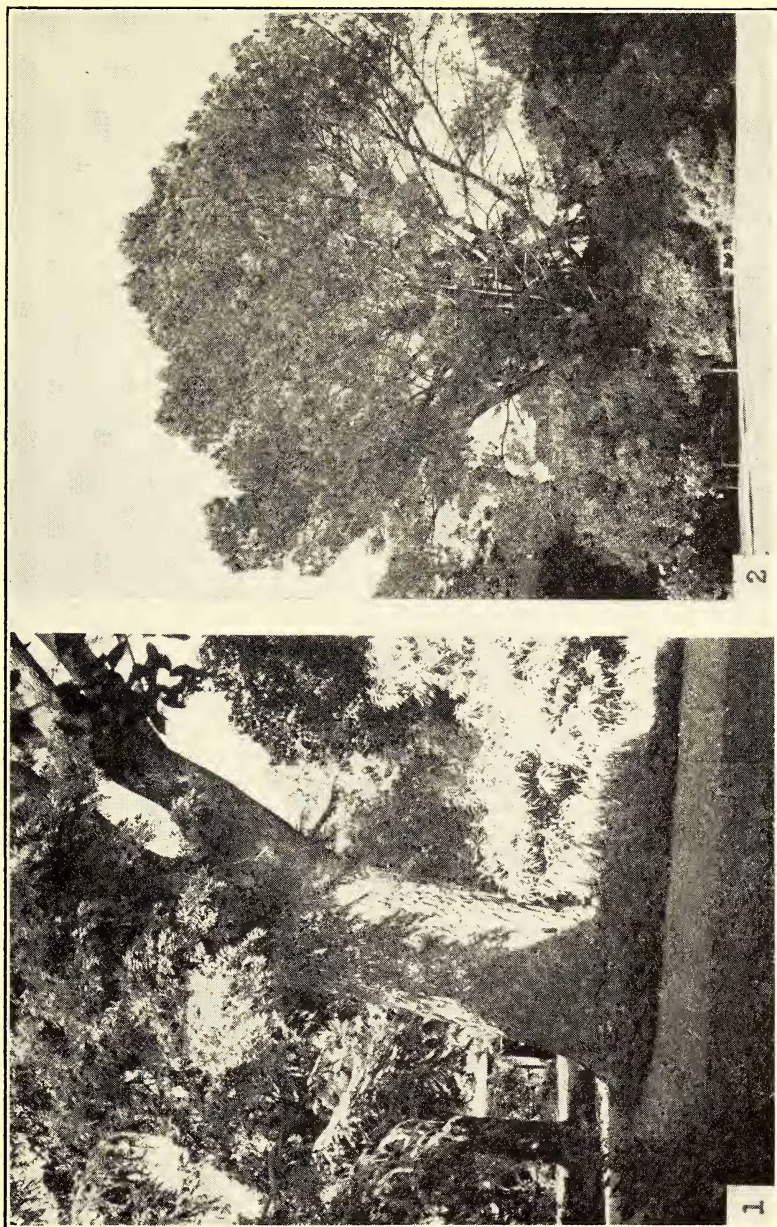


PLATE 18. PINUS TORREYANA. FIG. 1. TRUNK AND LOWEST TIER OF BRANCHES. FIG. 2. HABIT AND BRANCHING OF CROWN.

diameter at its junction with the main trunk of the tree. Above the lowest tier of branches is a second tier composed of three large branches. All of the branches extend upward, spreading in the broad, open habit characteristic of the Torrey pine. Very few cones are to be observed on the tree. The trunk is like that of a massive oak. The diameter, breast-high, is five feet six inches, at ground level, eight feet; fourteen feet above the ground the lowest tier of branches diverges from the trunk (pl. 18, fig. 1).

This magnificent specimen is in the garden of the W. P. Fuller, Jr., estate at 245 El Cerrito, Hillsborough, San Mateo County, California. It is without doubt the finest specimen in the gardens of our bay district.

At Carpinteria, Santa Barbara County, there is another fine specimen which measures one hundred feet in height, more than one hundred feet in the diameter of the crown, and nearly five feet in diameter, breast-high.

Happy Hours, Menlo Park,  
California, August, 1939.

## SIX THISTLES RECENTLY INTRODUCED INTO TEXAS

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*CENTAUREA MELITENSIS* L. So far as known, the star thistle was first collected in Texas in Bexar County in 1934 by Mr. H. B. Parks. The writer first saw and collected it along the highway in Kerr County, five miles west of Comfort on May 24, 1935. Since then this species has spread rapidly to the south, west and north, apparently along highways only, as far as two hundred miles from the Kerr County locality. It is now abundant along the sides of many of the roads of the Edwards Plateau. Mr. Parks writes that it is quite abundant on roadsides as far east as central Gonzales County. This thistle is a native of Europe, but has become established in the Pacific States. It is reported also from Georgia and Alabama to Massachusetts, Missouri and westward.

*CENTAUREA PICRIS* Pall. (*C. repens* L.) On June 2, 1937, the writer received from Superintendent J. J. Bayles of Texas Substation No. 9 at Balmorhea, Reeves County, good specimens of this species, commonly known as Turkestan thistle, with the statements that this plant had become introduced into the irrigated alfalfa fields of that section, and that it might prove to be a troublesome weed. This Asiatic species is established locally in California, and has also been discovered in alfalfa fields in Montana.

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